

THE MYCOPHILE

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November-December 2015

www.namyco.org

President's Report

By David Rust

I had the opportunity to travel in the past few months to some really fun mushroom events. The New Mexico Mycological Society holds an annual foray during the height of their season; this year's event convened in a ski area near Taos, NM. More than half of the attendees were NAMA members. Debbie Viess and I were invited to attend the fall 2015 foray of the Pacific Northwest Key Council in Olympic National Park (WA) and found many kindred NAMA members there as well. At both of these forays, participants were encouraged to identify their own mushroom collections.



NAMA President gets help at NAMA registration table.
Photo by Arleen Bessette.



Vivien Benjamin and Julie Gaylord go through mushroom collections at NMMS foray.
Photo by David Rust.



Pacific Northwest Key Council participants (minus several folks who had left earlier). You'll recognize many of these mycologists from NAMA forays.
Photo by Lee Whitford.

The NAMA Board of Trustees held our annual meeting before the NAMA Blue Ridge foray. In case you're new to NAMA: the Board makes policy changes, approves foray site selection, and elects officers. We voted to honor Gary Lincoff by renaming the Gary Lincoff Award for Contributions to Amateur Mycology. I was re-elected as President for a second three-year term. I am grateful for this vote of confidence and the privilege of working with so many dedicated members. I appreciate the chance to continue working on many new "modernization" projects for NAMA.

We are thrilled to have Kathy Yerich as our new 1st Vice President. Kathy has been an active Minnesota Mycological Society member since 2005 and was voted to the MMS board as recording secretary shortly after. She joined NAMA in 2009 to attend the foray in Lafayette, LA and has been hooked ever since – so much so, that she collaborated on a field guide with Teresa Marrone for Adventure publications called, "Mushrooms of the Upper Midwest".

At the Blue Ridge foray, we also honored award recipients, including Andrus Voitk, who received the newly-named Gary Lincoff Award for Contributions to Amateur Mycology. Andrus is a former member of the Mycological Society of Toronto, and now organizes wonderful science-based mycology events with Foray Newfoundland & Labrador, and edits the terrific electronic newsletter, [Omphalina](#).

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UPCOMING FORAYS & OTHER EVENTS

This section of **THE MYCOPHILE** is reserved for publicizing the annual forays of NAMA affiliated clubs and other events you may be interested in learning about. If you would like us to list your club's next big event, contact us with details you would like displayed here and send to Dianna Smith, editor of NAMA's bi-monthly newsletter: mycophile@namyco.org. See also <http://namyco.org/events/index.html>.

December 11-13: Gulf States Mycological Society will host its Winter Foray on at Camp Hardtner, Pollock, La, 20 miles or so north of Alexandria LA, which has a major airport. Guest Mycologist will be Denis Benjamin, M.D., a well-known author and water color painter, who plans a mushroom drawing workshop on Saturday. Our hosted graduate student for this foray is Emma Harrower of the University of Tennessee. We will foray into the nearby Kisatchie National Forest. Please check our website for details and a registration form at <http://gsmyco.org>.

January 22-24: All California Club Foray (ACCF) will be held in January 2016 by BAMS. Chief mycologist will be Judy Roger, a member of the Oregon Mycological Society. This event includes catered meals, comfy lodging, and mushroom hunts in the bountiful Jackson Demonstration State Forest near Mendocino. This foray is open to members of California mushroom clubs and NAMA members. More information and to register please visit <http://bayareamushrooms.org/>.

July 28-31: NEMF (Northeast Mycological Federation) Annual Sam Ristich Foray will be held at Fitchburg State University in central MA close to the NH border. Chief mycologist will be David Hibbitt of Clark University. Further details and registration will be available soon at the BMC website <http://www.bostonmycologicalclub.org/NEMF2016.html> and at NEMF.org.

September 8-11: NAMA Shenandoah Foray located in the unique environment of the bio-regions of the Blue Ridge Mountains and the Shenandoah Valley of Virginia. We will be stationed at the Northern Virginia 4-H Center in Front Royal. <http://www.nova4h.com/#landing>. Registration opens Spring of 2016.

September-22-25: Annual COMA Foray located in Copake NY in the Berkshires at the intersection of NY, CT and MA. Check for updates and registration online at www.comafungi.org.

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Cornelia Cho, President of the Mushroom Club of Georgia, received the Harry and Elise Knighton Service Award for her many years of hard work and dedication to her club. Her letter of nomination spanned six pages. **(Note: If there's someone who has made a significant contribution to your club, please nominate them for the Harry and Elise Knighton Service Award. Every NAMA affiliated mycological club may nominate one candidate whom it feels has performed meritorious service during the current or preceding year. Nomination details can be found here: <http://www.namyco.org/awards.php>.)**

Rachel Koch is the 2015 NAMA Memorial Fellowship recipient, given this year in memory of Patrice Benson. Rachel received a BS in Biology from the University of Notre Dame in 2011. She joined the lab of Dr. Cathie Aime in August 2011 and became a PhD candidate in June 2014 at Purdue University. Her dissertation research focuses on the recently described gasteromycete *Guyanagaster necrorhizus*, known only from the Pakaraima Mountains of Guyana.

In recognition of their hard work putting together the new Mushroom Dyes & Papermaking section on the NAMA website, I chose Susan Hopkins, Cheryl Dawson, Dorothy Smullen and Dorothy Beebee as recipients of the 2015 President's Outstanding Service Award. See http://www.namyco.org/mushroom_dyes_and_papermaking.php

Silent Auction

Soliciting and gathering material each year for the silent auction is a task carried out by members really dedicated to furthering our endowed fellowship. This year, as in countless past years, setting up and managing the silent auction was done by Herb and Ursula Pohl and Pat and David Lewis. Thank you to all the folks who brought contributions and to the Philip Hanes estate for donating a collection of mycological prints and books. Philip and Charlotte Hanes often attended the Wildacres Regional Foray as NAMA Life Members. Thanks to these dedicated efforts and contributions, this year's silent auction brought in what we believe is the highest total ever: more than \$5,000. Dr. Weinberg has shared this story with us, published in the *Annals of Internal Medicine* in 2014. The first course was an exotic mushroom soup, prepared by Hanes himself. I highly recommend clicking on this link http://namyco.org/endowment_donors.php to see the story and an extended bio of Phil Hanes.

At this year's foray, for the first time in NAMA's history, we collected tissue samples on Whatman Plant Cards for DNA sequencing. NAMA member La Monte Yarroll worked directly with mycologists to choose and record unique, interesting fungi. The laboratory analysis will take place in the Vilgalys Mycology Lab at Duke University. A total of 210 samples were collected for the project. This data will support the North American Mycoflora Project. Next year, we hope to provide tools for more people to participate in this process.

Dues Renewal Time

NAMA dues renewal is coming soon. With our new membership management system in place, we will send a notice to you via email in early November. This new process will replace the paper reminder we sent in previous years. Yes, you can still pay by check if you prefer, but note: if you want a print subscription to our premier newsletter *The Mycophile* you'll see a separate payment during your PayPal transaction. All other members will receive the full-color online version. If you have questions, contact Membership Secretary Steve Bichler at membership@namyco.org.

Webmaster and *McIlvainea* Editor Needed

I've been webmaster since 2008; it's time for someone with web skills and creative talent to take over. Now that we've transitioned to Vieth Consulting, the job requirements and duties have radically changed. If you're interested in this volunteer position, please contact me at president@namyco.org.

Our wonderful *McIlvainea* Editor Willow Nero has moved across the Atlantic. We need a new editor for NAMA's peer-reviewed journal. *McIlvainea* was first published in January 1972. We need a skilled editor to

(Continued p. 4)

solicit articles and get them published online. If you're interested in this volunteer position, please contact me at president@namyco.org.

I truly enjoyed meeting and talking with many of you at the Blue Ridge Foray near Asheville. Many thanks to the Asheville Mushroom Club and the Mushroom Club of Georgia for all their efforts in putting the foray together. I look forward to doing it again next year at the other end of the Blue Ridge Parkway, at the Northern Virginia 4-H Educational Center, Front Royal, Virginia, hosted by the Mycological Association of Washington DC, and the New River Valley Mushroom Club.

Did you know NAMA has a Facebook page? Check it out: <https://www.facebook.com/groups/214397418588682/> and contribute!



Photo by Cassandra Fuentes

NAMA 2015 Foray: So Much More than the Field Trips...

By Ellen Wan, Mushroom Club of Georgia

When you think about the 2015 NAMA Blue Ridge Foray, the first thing that comes to mind are the mushroom walks. Those hikes through the Appalachian forest, branches and twigs brushing your face, where no hill seemed too steep and no day too long, as you searched for that mother lode maitake or the mythical Morris bolete.

Inevitably, the walks

also included celebrity sightings, which added a further sense of excitement to the foray. You might've found yourself down-trail, staring at the trees trying to distinguish tulip poplars from oaks, only to have Daniel Winkler rush by, camera in hand, yelling out the identity of every mushroom in the patch you'd inadvertently stepped into but had no idea was there. Or maybe you stumbled across a group of fungi enthusiasts deep in the forest, huddled around a tree stump and patiently waiting while Whitey Hitchcock played his harmonica as part of a mushroom "snake charming" ritual. And then there was the chance encounter with Tradd Cotter, who you would find lying in the middle of the trail digging mushroom specimens out of the ground for culturing, and more than happy to point out all the edible plants in the area should you for some reason have to spend the night in the forest.



Photo by Jamie Newman

The field trips are certainly a defining feature of the NAMA foray. But it isn't until you find yourself sitting around a campfire several weeks later, talking about the foray with like-minded mycophiles, and one of them asks if anybody heard the talk about a "mycological civilization," that you start to realize the foray is so much more than the walks. Each year the NAMA foray schedule of events is packed with talks from amateur and professional mycologists on a wide variety of subjects, and this year was no exception. With an expanded schedule of over 27 presentations, given by the likes of Alan Bessette, Britt Bunyard, Tradd Cotter, Todd Elliott, Susan Hopkins, Jay Justice, Julia Kerrigan, Dan Lazar, Paul Stamets, Tom Volk, and Daniel Winkler, everyone should have been able to find something of interest. Want to know if you can eat that bolete or amanita? Check. Curious about a DNA barcoding project for mycoflora? Bring your scanner. Ever consider the different types of human fungal pathogens? Cover



Photo by Jamie Newman

your eyes, some of these pictures will not be cute.



Photo by Dianna Smith

Several keynote speakers at this year's NAMA foray had people buzzing. Todd Elliott kicked off the foray with "Adventures in the Fungal Ecosystem," which started with an a cappella mushroom song, and then transitioned to a tour of his recent adventures through the Appalachian mountains of the United States, on a truffle farm in Australia, and across the forests of West Africa in his efforts to understand and document mushroom diversity throughout the world and the interaction of mushrooms with their surrounding ecosystems.

The next day, everyone was treated to a double-feature that included Paul Stamets and Tradd Cotter. In "Mushrooms for People and Plant: Ancient Allies for Modern Maladies," Paul updated everyone on his research into the use of polypore extracts to treat cancer and protect against viruses that may be weaponized for bioterrorist activities. In addition, he described his research into the worldwide decline of honeybee colonies and explained how his work to identify the biochemical pathways of p-coumeric has led to the development of a mycelium-based "bee food" that has been found to increase honeybee lifespans, while simultaneously decreasing their viral load, and may be the key to saving the bees. Later that day, Tradd took the



Tradd Cotter showing insect cordyceps on a tree branch
Photo by Ellen Wan

stage and discussed his vision of the future in "Mycotopia: Visions from a Mycologically Based Civilization." Arguing that the world is missing a tremendous opportunity to capitalize on the many benefits of mushrooms and mycology, Tradd described what a world with mushrooms at its foundation would look like, including their use in farming, waste disposal, recycling, mycoremediation, clothing, and medicine.

On the last night of the foray, Alan Bessette presented "Mushrooms of the Southeastern U.S. - Excitement & Frustration." With a beautiful collection of mushroom pictures, Alan had the audience murmuring excitedly as he showed off the won-

derful mushroom diversity in the Southeast from as far away as Florida's Okefenokee Swamp to a South Carolina rest stop. Finally, Todd Elliott and Tradd Cotter closed the last day of the foray with a detailed look at insect cordyceps from around the world in "Insect Fungal Pathogens." The audience was stunned by the pictures of cordyceps emerging from the heads and bodies of a variety of insects and had the opportunity to view and hold several specimens Todd and Tradd have found during their travels.

The foray also included a number of other interesting and memorable presentations. For aspiring mushroom photographers, John Plischke III, in "Mushroom Photography: The Basics Plus," provided an overview of the equipment required, what settings to use ("make sure your camera is on 'A' and 'F16,' with the ISO at 200"), and recommendations for framing photographs to highlight the different features of a mushroom. Daniel Winkler escorted the audience through the mountains and villages of Colombia, giving them a sense of the mycoflora and cultural attitudes toward mushrooms ("they don't eat chanterelles") in "Colombia Mushroom Magic." In an "Overview of Dyeing with Mushrooms," Susan Hopkins educated the audience about mushrooms that could be used for dyeing, how the final colors will vary with different chemicals,



Photo by Dianna Smith



Akanthomyces arculeata
Photo by John Plischke III

(Continued p. 6)

and what animal fibers worked best. And Tom Volk took it upon himself to scare the hell out of everyone by discussing human fungal infections in “The Fungi that Infect People.” In a talk filled with photos showing the results of several human fungal infections, Tom explained the difficulty treating fungal infections because of the close phylogenetic similarity between humans and fungi, described how fungal infections occur, and highlighted some of the more common fungal ailments (“dandruff is a fungal infection!”) and their treatment.

The presentations discussed here are but a small sample of the talks that were available at the NAMA 2015 Foray, but they certainly highlight how the foray is so much more than its field trips. So as you prepare for next year’s NAMA foray in Virginia, be sure to grab your notebook and pen to record those one or two tidbits from the presentation schedule that will come in handy the next time you’re sitting around the post-NAMA campfire.



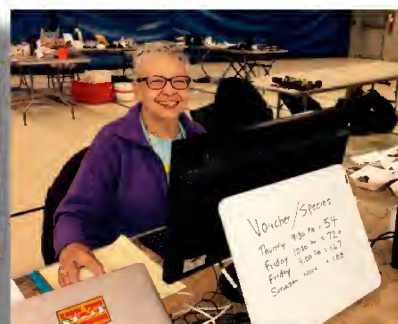
Photo by Dianna Smith



Photo by Cassandra Fuentes



Walt Sturgeon, Arleen and Alan Bessette DS



Adele Mehta, Recorder DS



Barbara Sloss
DS



Omphalotus illudens by Bill Yule



Evening Musical Jam Session



Photo by Cassandra Fuentes

Photo by Britt A. Bunyard

NAMA 2015 Foray: Mycophagy

Article and photos by Ellen Wan, Mushroom Club of Georgia



Eating mushrooms is a major highlight for any foray-goer. Mycophagy sessions at forays can expose you to different wild and cultivated edible mushrooms and preparations that you might not have encountered before. It's a fun time of eating, exploring, and socializing, and the NAMA 2015 Foray did not fail in that regard.

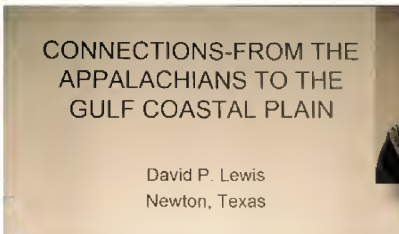
After a long day of hikes and talks, foray-goers eagerly lined up to sip on warm morel and curried lobster mushroom soups and nibble on hearty oyster, shiitake, and chicken (of the woods) hors d'oeuvres, distantly mindful that dinner was just one hour away.

This year, mycophagy was also joined by cooking demonstrations, which made for a dynamic social experience. Members from the hosting and nearby mushroom clubs of the Carolinas and Georgia showered folks with tastings stations of:

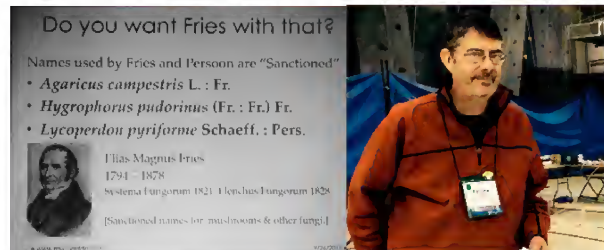
- Fried oysters with sriracha mayo
- Wild mushroom pate with crackers
- Savory mushroom pancakes
- Puffball chocolates (white minty chocolate and dark peppery chocolate)



Mycophagy: never to be missed, if you can help it!



David Lewis DS



Patrick Leacock DS



Photo by Britt Bunyard



Walt Sturgeon Photo by Jamie Newman



Rod Tulloss Photo by Jamie Newman

Andrus Voitk

Winner of the 2015 GARY LINCOFF AWARD FOR CONTRIBUTIONS TO AMATEUR MYCOLOGY

NAMA's Award for Contributions to Amateur Mycology is given annually to recognize a person who has contributed extraordinarily to the advancement of amateur mycology. Its recipients have often extensively conducted workshops, led forays, written or lectured widely about mushrooms and identified mushrooms at forays and fairs, all on a national or international level.

“This nomination of Dr. Andrus Voitk is to recognize the service that he has rendered to amateur mycology in general and in specific for the huge amount of work that he has done to help the residents of the province of Newfoundland and Labrador understand and appreciate the diversity and distribution of their fungi. I have known Andrus Voitk since 2002, and for much of that time have been intimately associated with some of the projects that he has initiated. His infectious ideas and his ability to plan complex events and mobilize large teams of volunteers, to find funding year after year, and to entice professional mycologists from around the world to donate their time and expertise, have made Foray Newfoundland and Labrador known to mycologists and mushroom enthusiasts throughout North America.

“Andrus’ dedication to exploring, recording, reporting, and helping others learn about the natural history of Newfoundland and Labrador has been an inspiration to naturalists and biologists throughout this province. His generosity with his time and his knowledge laid the foundation for the annual mushroom foray in Newfoundland and Labrador, and directly inspired another foray in Nova Scotia and one that is starting up in New Brunswick. Along with its international roster of expert mycologists, Foray Newfoundland and Labrador has attracted visitors to this province from the U.S.A., Mexico, Estonia, Finland, Holland, Belgium, and from across Canada, with a contingent coming from Toronto most years. Thanks to Andrus’ clear vision of the event, the Foray is fun for all participants, and has become well known for its scientific rigor and its accessibility to experts who wish to use portions of the collected material.

“Andrus moved to this province as a surgeon, but retired in 2001. After retiring, Andrus became deeply involved in natural history (he was president of the Humber Natural History Society in Corner Brook for several years), became an excellent natural-history photographer, and by combining his knowledge, his photography, and his writing ability, he has become a one-man natural-history publishing phenomenon.”

Michael Burzynski
Chair, Foray Newfoundland and Labrador



Andrus and Maria Voitk in their livingroom
Photo by Joe Brazil

Cornelia Cho, Winner of the 2015 NAMA HARRY AND ELSIE KNIGHTON SERVICE AWARD

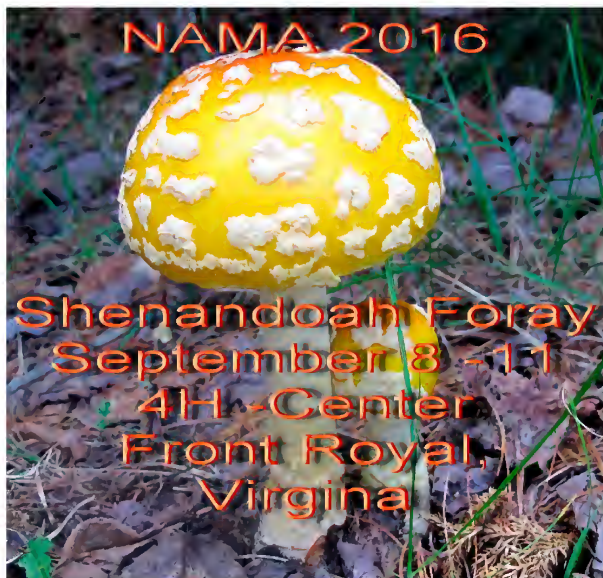
The Harry and Elsie Knighton Service Award was established by the NAMA Board of Trustees to recognize and encourage persons who have distinguished themselves in service to their local clubs. It is named for the Knightons, whose efforts began the North American Mycological Association in 1967.

In the short time Cornelia Cho has served as president of the Mushroom Club of Georgia (MCG), she has transformed MCG from a small, localized club into an active organization with diverse membership, regional influence, and national presence. Through her genuine interest in others and personal love of learning, Cornelia found intersections between club members' skills/interests and areas in which the club could grow and turned the club into a group effort, praised people for their contributions, and nurtured enthusiasm, ownership, and community. Club activities grew in diversity and scope under Cornelia's thoughtful leadership, and membership more than doubled in size with new members as far as California and as young as eight years old. Cornelia also forged relationships with notable leaders in amateur and professional mycology across the nation and continent, bringing their expertise to MCG.



Cornelia Cho at the Felting Workshop
Photo by Ellen Wan

With vision, intellect, and inclusiveness, Cornelia has led MCG through an incredible transformation in less than five years. Through her efforts, Cornelia is building a leading mushroom club in the region and a strong community of amateur mycologists in Atlanta and Georgia.



Mark your calendars for the 2016 NAMA Shenandoah Foray!

**Four days of fungi and fun
In the Appalachian foothills abutting
Shenandoah National Park featuring:
Multiple forays in diverse habitats -
From riparian to mountain trail;
A culinary experience nonpareil;
and**

**Professional mycologists for identification and guidance
As well as
Inspirational speakers
And much more Registration opens Spring 2016.**

NAMA 2015 Foray Workshop: Fungi Felting Fun

Embellishing Fabric with Needle-Felted Mushroom Designs

Text and Photos by Ellen Wan, Mushroom Club of Georgia



After a cold and wet, rainy first day of the NAMA 2015 Foray, many of us were glad for the chance to stay inside warm and dry, yet still active both mentally and physically with a new creative endeavor at Cornelia Cho's Fungi Felting Fun workshop.

At first, we sat mesmerized by the piles of colorful wool, bottles full of sharp needles, and stacks of foam. Then, we quickly got a taste for what to expect after watching a Science Friday video of Cornelia's 2012 NEMF workshop.¹ In no time, each of us was armed with a barbed felting needle, blank fabric canvas, and a foam cushion to keep us from stabbing ourselves and ready to dive into the pile of wool.

Felting is simply tangling a bunch of animal fibers (like wool) together to create a solid mat. With a few tools and some inspiration, anyone can shape those fibers into a neat image, an artistic impression, or in our case, our favorite mushroom on fabric.



The morning flew by as we punched away at the fibers with our barbed needles (which some people likened to popping bubble wrap), while Cornelia, an enthusiastic teacher, generously shared her tips, tricks, and materials. By lunchtime and from nothing but fiber, the complete beginner and veteran art teacher alike had created colorful and stunning images of boletes, amanitas, morels, lactarius, puffballs, and more.

Everyone was a mushroom artist that day!



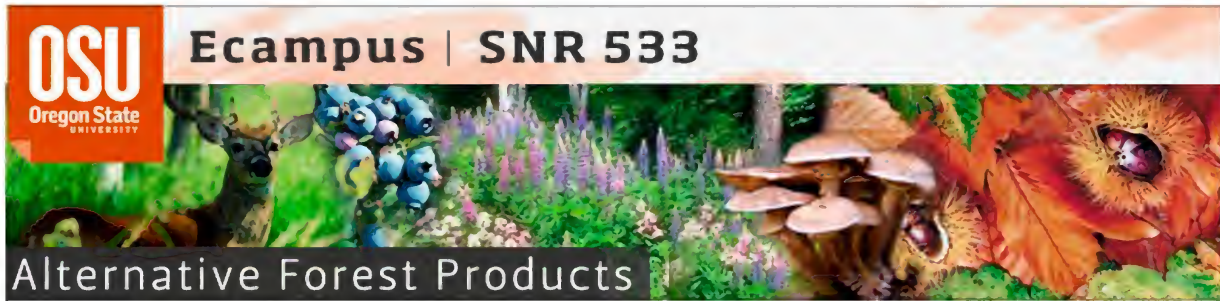
Felted Haiku

Long rains, stop and go
Hiding fungi in plain sight
In warmth we sheltered

Off the wooded path
Yearning to find the mushroom
Fast from threads they grew

Tooth'd needles nudged
Toadstools, morels, chanterelles
In one season flushed

Heist, A. (2012, September 14). *Fungi Fans 'Felt' the Love*. Retrieved from <http://www.sciencefriday.com/videos/fungi-fans-felt-the-love-2/>



Abbreviated Sample Course Syllabus for SNR 533

ALTERNATIVE [Nontimber] FOREST PRODUCTS, 2 [quarter-hr] credits; Jan – March, 2016

Instructor

Leon H. Liegel, PhD; Ecampus/Online Degrees
Oregon State University; Corvallis, OR 97331
liegell@onid.orst.edu

Course Description Explores the biological, economic, and sociocultural aspects of using, managing and harvesting alternative non-wood products, also called nontimber forest products (NTFPs).

Prerequisites

Enforced Graduate standing. This course is for both degree- and non-degree-seeking learners having an undergraduate 4-year degree. Those seeking Oregon State Univ. online graduate degrees or certificates must take a minimum of 3 credits per term. Non-degree-seeking learners can enroll for graduate courses that are 1 or 2 credits as is SNR 533.

Co-requisites None. Find information for graduate admission requirements at:

<http://ecampus.oregonstate.edu/online-degrees/graduate/sustainability>; Email: ecampus@oregonstate.edu; Tel 800-667-1465

Course Goals and Objectives Alternative or NTFP products provide basic food, clothing, and shelter for millions of people in still-developing nations. Even NTFP harvesting in the United States, Canada, and Europe provides extra income and a self-paced way of life in which one works outdoors while being his or her own boss. Harvest and management of NTFPs takes place on private, public, and tribal lands. Products are harvested, sold, and used locally, regionally, nationally, and globally. Harvesting and managing NTFPs present different, sometimes conflicting, goals for landowners and harvesters. Goals range from simple personal and recreational harvest and use to extensive commercial harvesting across hundreds, thousands, or even millions of acres of forest and range lands. SNR 533 provides skills and examples to consider NTFP management in

the broader context of sustaining diverse natural resources in temperate and tropical ecosystems.

Post-Winter 2016 Courses Learner feedback: Change SNR 533 curriculum to 3 credits? If so, why and how?

Expected Learner Outcomes Learners will:

- comprehend and explain biological, sociocultural, and economic components of NTFP management
- recognize, discuss, and analyze linkages and interactions between various NTFP topics and issues at local, regional, national, and global scales
- identify/compare factors that motivate harvesters, land-owners, land managers, politicians, the public, and other stakeholders to favor use, protection, or enhancement of NTFP resources
- synthesize concepts and devise methods to develop realistic solutions to NTFP management issues
- develop a short Plan to manage an NTFP product on a learner area of interest, using concepts learned
- integrate one's Plan into the larger context of comprehensive sustainable resource management

Course Content

- Week 1 Historical Context
- Week 2 Indigenous Rights and Issues
- Week 3 Biological and Ecological Considerations
- Week 4 Social and Cultural Context
- Week 5 Economic Factors
- Week 6 Land Management Goals
- Week 7 Regulatory Context
- Week 8 Monitoring Methods
- Week 9 Participatory Monitoring and Management
- Week 10 Integrative Strategies
- Week 11 Conclusions/Evaluate Management Plans

Learning Resources No textbook is required. Teaching resources include PowerPoint shows, main and additional readings from professional articles and books, supplemental references, Internet links, videos, and podcasts provided

via online instruction. Course delivery and assignment submissions require high-speed Internet access and connectivity.

Learners with Disabilities Those eligible for Disability Access Services (DAS) accommodations should contact DAS at 541-737-4098. Search this web site for available services: <http://ds.oregonstate.edu/contact>

Course Syllabus Information See this web site: <http://ecampus.oregonstate.edu/soc/ecatalog/ecoursedetail.htm?termcode=all&coursenumber=533&subject=SNR>

Registering for SNR 533, 2 graduate credits

Winter term 2016 runs from 4 January to 18 March. **New degree - and certificate-seeking students** should submit a detailed application to Oregon State University Graduate School *at least one month before 4 January 2016*. They must take at least 3 online credits per term; SNR 533 is only 2 credits.

Non-degree students submit a much abbreviated [Quick Admit](#) online application form; they have no restriction on number of credit hours taken per term. *Complete course enrollment by 18 December 2015 to allow for reduced working staff during Christmas/New Year holidays.*

Non-degree graduate students

Type this address in your Internet browser (<http://grad-school.oregonstate.edu/admissions/>)

Right side menu screen: Select **Non-degree Admissions**

Near bottom of new screen, under **How to Apply**, click [online application](#)

In new screen titled **Graduate School Application Login**, select [Create New Account](#).

Complete four areas on the **Application Checklist** [< 10 minutes].

Partially-entered information can be saved and completed later

Click **Submit** when application is complete

Degree- or Certificate-seeking graduate students

Read detailed information under <http://gradschool.oregonstate.edu/admissions/>.

Graduate Course Costs

1a-Non-refundable graduate **Non-degree application fee** = \$35

1b-Non-refundable Domestic degree-seeking application fee = \$75

1c-Non-refundable International degree-seeking application fee = \$85

2-Online course tuition/fees 2 credits x \$521/credit hr = \$1042 (degree and non-degree students)

(See <http://ecampus.oregonstate.edu/services/tuition/>)

Course Grading vs. Audit In class week 2, students can opt to take a course for no credit, receiving an AUD designation rather than a letter, A to F, grade. For non-degree students, OSU Ecampus facilitates this request. However, audit tuition/fees and a 1-time application fee apply as for regular courses. SNR 533 encourages critical thinking via almost-daily, interactive, student-student and instructor-student interactions. Thus, as per instructor guidance, learners taking SNR 533 as an audit complete online discussions and assignments as do those taking the course for a letter grade.

Questions? Contact the Oregon State University Ecampus (online) Degree Programs Office: Email: ecampus@oregonstate.edu Phone: 800-667-1465 or 541-737-9204

ONLINE ARTICLES on FUNGI

Pisa, D. et al. **Different Brain Regions are Infected with Fungi in Alzheimer's Disease**. Sci. Rep. 5, 15015; doi: 10.1038/srep15015 (2015). www.nature.com/articles/srep15015.

British Antarctic Survey. **Warmer temperatures stimulate diversity of soil fungi** http://www.eurekalert.org/pub_releases/2015-09/bas-wts092815.php

University of Wisconsin-Madison. **"Mycologist says our close relatives break the bounds of biology."** www.sciencedaily.com/releases/2015/10/151026181713.htm.

Ganoderma applanatum



By William Needham, Vice President of MAW: Reprinted from the winter edition of *The Potomac Sporophore*

Common Name: Artist's Conk, Giant Shelf Fungus, Tree Tongue, White Mottled Rot Fungus, Kofukitake (Japan), Flacher lackporling (Germany), Трутовик плоский (Russia - pronounced Trutovik ploskiy).

The white pore surface stains brown when compressed according to the applied pressure creating an image that persists in perpetuity; it is a natural artist's canvas. Conk is a term for any fungus that is attached to a tree like a bracket - an architectural shelf support.

Fig. 1: *Ganoderma applanatum*
by William Needham

Scientific Name: *Ganoderma applanatum*

Ganoderma applanatum is a polypore (literally many pores), which is a general term that refers to the presence of pores (instead of gills) on the underside of the cap in a bracket or shelf presentation (boletes have pores but have the cap and stem mushroom configuration). The generic name is a combination of the Greek words *gano* which means 'brightness' and *derma* meaning 'skin.' *G. lucidum*, which has a shiny upper surface, is the type or characteristic species for the genus. The name *applanatum* is derived from the Latin *planum* meaning 'plane' to describe the flat, bracket configuration of the fungus.

The Artist's Conk is a global species that subsists on both hardwood and coniferous trees as a parasite when they are alive, sometimes killing them, and as a saprophyte when they are dead. It is a white rot fungus, consuming both the structural cellulose and the binding lignin of the wood (the alternative brown rot fungi degrade only the cellulose, leaving brown, block-like chunks). The plurality of common names is evidence of their presence on every continent except Antarctica – which, among other things, has no trees. The fungus is readily recognizable for its ceramic-smooth, white-pored underside and for the wrinkled brown cap surface. Like the furrowed brow of Tolkien's Treebeard, it is nearly as old. The perennial *G. applanatum* can live for over fifty years. The notoriety of *G. applanatum* is due in no small measure to its canvas-like pore surface, an artist's easel that needs no paint. As is the case with many of the fungi, the application of pressure causes a color change, in this case from white to brown (known as 'staining brown' in the lexicon of mycology). What is unusual about the Artist's Conk is that the delicate application of pressure with a blunted stylus results in gradations of brown that can produce the chiaroscuro effects of portraiture – so much so, that, according to *In the Company of Mushrooms* by Elio Schaechter, "A church in the Mexican state of Puebla, Nuestra Señora del Honguito, is dedicated to a fragment of *Ganoderma* showing what is believed to be the image of Christ on the cross." While religious pareidolia is not uncommon, this may be its only manifestation with a fungus, presumably invoking Mother Nature as the artist. Remarkably detailed scenes can be created with a modicum of effort and a little imagination. It is indeed the Artist's Conk.



Fig. 2: Photo by Willow Nero taken at 2nd Annual Joint Appalachian Foray at the Mountain Lake Biological Station, Va.

The almost vitreous smoothness of the pore surface is due to the minuscule size of the pores, which are impossible to visibly discern without magnification; their 200 micron diameter is about twice the width of a human hair.

The large collective pore surface area combined with the small individual pore size results in many pores – which produce a barrage of spores. According to David Arora in *Mushrooms Demystified*, a large Artist's Conk “liberates 30 billion spores a day for 6 months of every year, or more than 5,000,000,000,000 (5 trillion) spores annually.” The astronomical spore count relative to the paucity of mature conk fruiting bodies is ample evidence of the infinitesimal probability of a single spore succeeding in reproduction. The billions of brown spores permeate the air around the fungus as they are carried by the wind in all directions, including up. The envelopment of brown

spores results in the cap surface becoming haggard with age, an ‘old-man-of-the-woods’ in both age and appearance. *Strobilomyces strobilaceus* is called the old-man-of-the-woods due to its shaggy, scaled and venerable looking cap surface, but it is an ephemeral, bolete that rises from the ground only on occasion and has longevity of weeks, not years.

Polypores have traditionally been placed in the order Polyporales, the family Polyporaceae and the singular genus *Polyporus*. However, the systematics of the polypores has been subject to significant revision to the extent that there are now about 50 genera of ‘polypores’; those that remain in the genus *Polyporus* are, according to Gary Lincoff in the *Audubon Field Guide to Mushrooms*, “annual and stalked, with pale-colored flesh and cylindrical, colorless spores.” The confused taxonomy of polypores is evident in the variety of scientific names that have been used for the Artist's Conk. In addition to *Ganoderma applanatum*, *Polyporus applanatus*, *Boletus applanatus*, *Fomes applanatus*, *Fomes vegetus* and *Elfvingia applanatus* have been used and are still found in some references.¹

The types of hyphae are one of the key taxonomic determinants to the new genus assignments for the once predominant *Polyporus*. The hypha is the essence of a fungus; it grows from the originating spore and extends in a filamentous tendril in search of nutrients much like the roots of a plant. As hyphae that are “sexually compatible” meet, they combine their nuclei in a double-nucleus cell called a dikaryon and separate into segments as they grow; a configuration that is called septate. The plexus of the many hyphae form the epigeal body of the fungus which is called the mycelium. Polypores are made up of up to three types of hyphae: generative, skeletal and binding. Generative hyphae are as described above in that they grow in the assimilation of nutrients. Skeletal hyphae are thick-walled and are not separated into segments (non-septate); they provide rigidity to the polypore. Binding hyphae are also non-septate, but are thin-walled to intertwine with just the generative hyphae, or with both the generative and the skeletal hyphae. Polypores can therefore be monomitic, dimitic or trimitic. Monomitic fungi that have just generative hyphae are relatively soft and pliable, such as the White Cheese Polypore (*Tyromyces chioneus*). Dimitic polypores that consist of both generative and binding hyphae are also pliable and soft, but they can be broken into segments readily, such as the Chicken-of-the-Woods or Sulfur Shelf (*Laetiporus sulphureus*). Dimitic polypores that consist of generative and skeletal hyphae are very hard and tough. The Artist's Conk is a prime example. trimitic polypores in which all three types are present have some pliability when they are young but grow stiff and rigid with age such as the Turkey Tail (*Trametes versicolor*).

1. Editor: On Mushroom Observer and several Facebook sites mushroomers are currently arguing for the use of the name *Ganoderma megaloma* (Lév.) Bres. 1912 for this northeastern fungus.

Ganoderma applanatum is not considered an edible fungus, as its skeletal hyphae make it too tough for human consumption. This is apparently not the case for our fellow primates. In the book *Gorillas in the Mist*, Diane Fossey offers the observation: “Still another special food (for the gorillas) is bracket fungus (*Ganoderma applanatum*)... The shelf-like projection is difficult to break free, so younger animals often have to wrap their arms and legs awkwardly around a trunk and content themselves by only gnawing at the delicacy. Older animals who succeed in breaking the fungus loose have been observed carrying it several hundred feet from its source, all the while guarding it possessively from more dominant individuals attempts to take it away. Both the scarcity of the fungus and the gorillas’ liking of it cause many intragroup squabbles, a number of which are settled by the silverback, who simply takes the item of contention for himself.” As the behavior of animals in the wild is governed by the successful adaptations that have withstood the test of time, the observed attraction of the impenetrable conk to the gorillas must be based on its taste or aroma. These sensory perceptions did not transfer to the *Homo sapiens* branch of the primate tree, as the Artist’s Conk is rock-hard and, when ground up and made into a tea, has at best a bitter taste described as earthy. Or perhaps there is another reason – to promote gorilla health. This is not as far-fetched as it sounds.

The fungi of the genus *Ganoderma* are noted for their historical use by the various peoples of Asia. *Ganoderma lucidum* is known in China as either Ling Zhi or Ling Chi; the word ‘Ling’ in Chinese translates with some license to ‘spiritual, miraculous, and/or divine,’ intending to convey its efficacy and provenance. In Japan, *G. lucidum* is called Reishi, which means something like ‘auspicious plant’ or ‘immortality plant,’ and also Mannentake, which translates to ‘10,000 year mushroom.’ This latter term is a metaphor for increasing the life of the person and not to the life of the fungal fruiting body, which lasts for just one season in one year. This is not the case with *Ganoderma applanatum*, which is sometimes called the ancient Reishi due to its near sexagenarian longevity. There is no indication that the Artist’s Conk was historically used for medicinal purposes by ancient peoples (gorillas don’t count); however, relatively recent research has revealed that this was a matter of omission and not commission. The ancient Reishi has been shown experimentally to have potential as an antibiotic to deter bacterial infections, as an agent to inhibit the growth of tumors, as an antioxidant, and as a treatment for diabetes.

The increasing virulence of drug resistant bacteria coupled with the dearth of antibiotic research and development is one of the existential concerns of modern society, a pandemic in the making. Fungi in general and *Ganoderma applanatum* in particular offer some hope in this regard. An article in the *Journal of Biomedicine and Biotechnology* in 2014 found that an exopolysaccharide preparation from *G. applanatum* (called GpEPS) resulted in 82.8% cell damage to the bacterium *Vibrio fischeri* (associated with seafood poisoning) and “showed antibacterial properties against the *S. aureus* strains”. *Staphylococcus aureus* is one of the primary concerns of the U. S. Centers for Disease Control (CDC) due to its ubiquity and due to its history of becoming increasingly drug resistant. Staph infections were originally treated with penicillin after the “miracle drug” (which is also a fungus) was discovered in 1943; now 98% of *S. aureus* is resistant. Newer antibiotics, first methicillin, then glycopeptides and now Vancomycin have all been compromised by bacterial mutations that result in antibiotic resistance. Further fungal research is clearly warranted in the interest of epidemiology.

The so-called War on Cancer that began auspiciously with the National Cancer Act of 1971 has become a synonym for bureaucratic hubris. Forty years later it is still the primary cause of death for people of middle age and older. Coincidentally, the seminal paper “Antitumor polysaccharides from some Polyporaceae, *Ganoderma applanatum*” appeared in the *Chemical and Pharmacological Bulletin* that same year. Polysaccharides are long chains of hydrocarbon molecules. Chitin is a polysaccharide that forms the cell walls of fungi (another polysaccharide forms the cellulose of plants). In the case of *G. applanatum*, the polysaccharides β -glucans have been shown to stimulate macrophages which kill the tumor cells, and, probably more importantly, inhibit the formation of new blood vessels (called angiogenesis) which the tumor requires for growth. The gorillas probably already knew this.

Photos from the 2015 Wildacres Foray

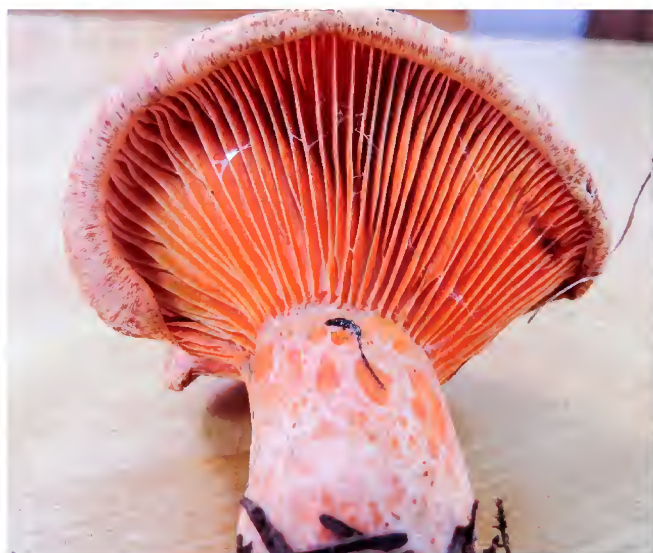
by Bill Yule of CVMS



Coltricia montagnei



Pisolithus arhizus (*Pisolithus tinctorius*)



Lactarius thynos



Russula peckii

Pacific Northwest Key Council Foray, Fall 2015: California Kid in a Candy Store

If you are a dyed in the wool mushroom geek like I am, the opportunity to join this storied and highly productive group of PNW mycologists was a dream come true!

For those who are unfamiliar with this NAMA affiliated club, the Pacific Northwest Key Council is a working group of talented and dedicated mycologists, both amateur and professional, who came together in 1974 to better study the diverse fungi of the Pacific Northwest region. What an incredibly productive handful of decades it has been! These folks, the cream of the PNW taxo-crop, have cooperated to discover, scope, voucher and organize into publically accessible keys the many different and sometimes unique fungi of the PNW. You can find these wonderful, photo rich keys online here: <http://www.svims.ca/council/>.

A history of the PNW Key Council by Michael Beug can be found on the NAMA website here: http://www.na-myco.org/the_pacific_northwest_key_coun.php.

The wonderful *Matchmaker* software, created by Ian Gibson, was also born from Key Council efforts, and is free and fully downloadable onto your computer, and now, thanks to the efforts of Danny Miller, this is true even if you have a Mac! It is primarily focused upon the PNW region, but I do find some species overlap here in Northern California. A link to the *Matchmaker* homepage can be found here: <http://s158336089.onlinehome.us/Ian/>.

The Key Council forays, which are exclusive, members-only events, usually take place in the fall and spring of each year in various PNW locations. Only invited guests, voted in members and their “spouses” may attend. We were disappointed to hear that invited guests may only attend one time. As a possible remedy to this apparently iron-clad rule, David and/or I are potentially looking to “marry” one or two of the current Key Council members. Please write either or both of us separately. Unless the Key Council is willing to allow Northern California taxonomists into your exclusive club, we are willing to do whatever is necessary to remain a part of this great group.

Just kidding. Kinda.

This fall, the Key Council foray took place up on the Olympic Peninsula in Washington, at the NatureBridge Camp in Olympic National Park. Unlike in our fair state of California, there was actually rain earlier in the season, and a still damp temperate rain forest in which to hunt. It could have been wetter (drought has not bypassed the PNW, either), but it was wet enough to provide a wide variety of interesting mushrooms for we avid hunters. Even the NatureBridge campus where we stayed was fungally productive. On our first day we walked the extensive forested grounds abutting Lake Crescent, and among many familiar forms, I found a brand new to me mushroom: *Pseudoarmillariella ectypoides*.

This delicate, lightly haired, dimple-capped, decurrent gilled woodrotter has been confusing and thrilling its finders for many years, although it appears to be fairly common in its northern ranges. Formerly classified as a wood-rotting *Clitocybe*, it also bears a strong resemblance to *Chrysomphalina* and *Omphalina* genera, where many others, including myself, have wanted to place it due to its macro-morph qualities. Its amyloid spores, among other qualities, set it apart.

Ah, the beauty of a microscope-heavy geek foray, where one can readily answer these ID questions by diving below the surface!

(Continued p. 18)

Although my collecting opportunities in the PNW have been few, I was delighted to see a number of old taxonomically bent friends at this meeting, among them Oluna and Adolf Ceska, Danny Miller, Sava Krstic, who is now a Californian himself, Judy Roger, who drove us up from Portland, Ian Gibson of Matchmaker, Paul Kroeger, Joe Cohen and many others.

We also had the opportunity to meet with many folks whose names we have been reading for years. It was a veritable geek-fest!



Maggie Rogers and Giant Gyms Photo by Debbie Viess

Our most special guest of honor/longtime Key Council member was the wonderful Maggie Rogers, who has been too long away from her dear friends and dear fungi.

So good to see you, too, Mags!

She was a gal in her element, and bathed in the warmth of her many fond and enduring friendships, as well as reveling in those woods full of fungi and rust spotted leaves on the forest floor, and rocks on the beach! Nature in its myriad forms: how captivating and how soothing to our very souls.

Our good friend and colleague Michael Beug organized this fine foray, and invited us to attend, seducing us in with lures of luxury lodging and gourmet meals, in addition to wonderful mushroom hunting in temperate rain forest and a stellar mycologist lineup. The less said about the actual lodging and food the better (this just in: sometimes, advertising is deceptive!), but the foray location on the magnificent Olympic Peninsula, a place where David and I had never visited, and

the fungi and the fungiphiles in attendance were all very much worth the trip.

On the recommendation of Michael Beug, we traveled to two different Olympic Peninsula locations for our collecting and sight-seeing: the magical, moss-festooned Hoh Rainforest, both the National Park and open forest lands right outside of the park boundaries, and Olympic National Park at Mora, a lovely, ocean-side forest with magnificent surf and great piles of sculpted driftwood and wave-rounded beach stone, including “orbicular” jasper, and hunting bald eagles and yes, a wide variety of fungi in that ever productive campground area. It was here that we managed to find the curious, purple, perithecial parasite upon *Fuligo septica*: *Nectriopsis violacea*, nestled in the damp cavities of a well-rotted old growth Douglas Fir. Even Beug had never seen this asco in the flesh before!



Nectriopsis violacea

Photo by Debbie Viess

Many interesting collections were brought in, from super-macrofungi like the giant, clustered *Gymnopilus ventricosus/junonius*, attractively modeled by the inimitable Maggie Rogers, to a spectrum of *Amanita* species (some particularly choice examples of *A. constricta*) to many smaller examples of *Mycena* and *Marasmius* and their ilk.

One of the most curious finds was brought in by Oluna Ceska, of an unusual quasi-gastroid *Suillus* species, with a normal sized and shaped stipe but a highly unusual cap, thickly covered both top and bottom by reddish-yellow poroid hymenium. This upper hymenium was also temporarily covered by a very thin white membrane, which rapidly wore away.

No one was attempting a genera guess for this wonderful find, let alone a specific!

One other hot find last weekend was a beautiful example of a reddish-capped *Limacella glioderma/delicata* var. *glioderma*, a relative of *Amanita* but with a universal veil composed of slime. Danny Miller found this one while hunting the Nature-Bridge campus, on the day that he loaned us his car (thanks again for your generosity, Danny!). I was more than a bit jealous, since I have always wanted to find a *Limacella*, and this one was growing quite close to where we were staying. Guess that it pays to hunt locally, and maybe a bit of good karma helped, too?



Gastroid *Suillus*

Photo by Adolf Ceska

Danny was pretty darned excited to have found this, as well he should have been. Couldn't have happened to a nicer guy.



On Saturday night we were treated to a presentation by Fred Rhoades, who has spent a good bit of time obtaining marvelous 3-D images of fungi in the field. He provided those amusing 3-D glasses to his entire audience (shades of “The Martian” movie that we saw just last night at a local movie theatre!) and boy, were we all amazed by the results!

If you are a subscriber to FUNGI magazine, you have already seen some of Fred's work. His 3-D portrait of a trio of *Morchella snyderi*, a common Western mountain morel, was so real and pop-up in a table top display, that it was all I could do not to attempt to pick those tasty little life-sized

beauties. Instant hologram, just add funny glasses! Now all we need is some added value Smell-o-Vision, and who needs the woods?

Sadly, there is a whole lot of equipment, including dual projectors, one must bring along to enable this sort of show, and so Fred won't be taking it on the open road just yet. Hopefully he can make a North American tour once he has retired and has the time to drive around. Better get in line to book this one; it's great!

But a fun presentation aside, this foray was really all about the collecting and analysis of fungal finds. Folks were generous with their scopes and literature, something I greatly appreciated since I flew up and am attempting to travel light(er). Hard to fly with much of a library, and I can barely trust my luggage with the airlines, let alone my scope!

(Continued p. 20)

Like every mushroom organization these days, the Key Council is evolving as our knowledge grows and the face of our mycological community changes. The Key Council is a wonderful example for the rest of us on how local mycologists, both amateur and professional, can work cooperatively to discover, document and make publicly accessible the many fungi in a particular region. Not just one or two or three or four prominent voices, but a broad group of specialists and generalists who work together towards common goals, over a mutual love of fungi. Many stalwart friendships have been made and endure through these fungal connections.

Now that NAMA has redesigned its regions into more sensible groupings, perhaps more of us can step up and form more of these taxonomic working groups, whose goal is towards a public rather than private for profit clarification of North American mycology?

The Internet has made much of this free and easy information sharing possible. I do so love my books, but not everyone can afford an extensive library, subscriptions to all important journals, etc., etc. With taxonomic study groups creating useful and highly usable online regional keys, perhaps someday the answer to all of your mycological questions will be only a click away. But it will take hard work and dedication to come up with extensive keys of the quality produced by this fine local organization.

In conclusion, kudos to the fine fungal folks of the PNW, and thanks so much for including us in your recent Key Council foray. We would love to come back some day; see introductory paragraphs for helpful suggestions on how to make that happen!

Debbie Viess
Bay Area Mycological Society
www.bayareamushrooms.org

The Missing Key: Alan Bessette's Key to WAXCAP MUSHROOMS OF EASTERN NA

Those who own or use *Waxcap Mushrooms of Eastern North America* by Alan Bessette, William Roody, Walter E. Sturgeon and Arleen Bessette, know that despite the lack of a dichotomous key, the arrangement of the clear and precise color photographs permit easy comparison of similar species, leading, together with the full species descriptions, to a correct identification. Nevertheless, for those who prefer, or are more comfortable with, the standard dichotomous key, Alan has had occasion to generate one, which he has generously made available to public access. It can stand on its own or be used in conjunction with the guide.

On the homepage of the Long Island Mycological Club click on this link, http://www.limyco.org/key_to_waxcap.pdf to see a pdf of Alan's waxycap key prominently displayed. It can be downloaded and saved, or printed.

One species photograph, of *Hygrophorus amygdalinus*, that was not included in the book, can be seen on the Mycoportal website by using this link <http://mycoportal.org/portal/collections/individual/index.php?oc-cid=2448045&clid=79>. If that doesn't work, try doing a search for this species on Mycoportal, then scroll to the bottom of the results page to "General Observations and Personal Collections", and click on "Full Record Details".

Joel Horman, editor, LIMC



You Bring the Coffee, I'll Save the World

Michael James Emberger

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Britt Bunyard's review of *You Bring the coffee, I'll save the World* appeared in the Spring issue of *Fungi* magazine. Britt's opening "What happens when well-known mycologists Gary Lincoff and Michael Beug meet a James Bond-esq megalomaniac villain..." immediately had me hooked. Upon reading the book, a one-night page-turner, I was shocked at how much more similarity there was between me and the protagonist, Dr. Gary Berg, than Britt ever would have imagined.

The book is set in Costa Rica, a college field trip with ten students led by two faculty members. My career was spent with colleagues leading students on extended field trips. At one point, a near-death experience leads to the fictitious students asking about the nature of God and of life after death,

a discussion students in my car once initiated as we fled an erupting volcano. As in the book, a colleague, my students, and I also managed to cross powerful figures, eventually involving government at very high levels. However, Gary Lincoff and I were not models for this book involving NAMA, mushrooms and amatoxins. The model was Messiah College mycologist Gary Emberger, Michael Emberger's father.

The book is short on character development and long on improbable situations. I did not develop any warm feeling about any of the characters. The professors made too many stupid moves in too many different situations. I was thankful it was a quick read.

As a coffee loving foodie, I did enjoy the extensive descriptions of restaurants, the meals and coffee, though at times the focus on food seemed very incongruous, until... (well, let's not spoil that part).

All-in-all, if you are looking for a light, quick read suitable for middle and high school students, this book is worth considering.

Michael Beug

"When I agreed to accompany Dr. Stenvick on his cross-cultural to Costa Rica I never could have anticipated what we were in for. I can understand why the university has decided not to offer the trip again, but as I reflect on the events of that fateful week I keep returning to the same two questions: How can one man drink so much coffee, and what would have happened if we hadn't gone?"
- Dr. Gary Berg



"I had a fear of heights. After reading this book I have more of a fear of heights!"
"This story has made me realize that I don't drink enough coffee."
"Where can I buy a mug like Dr. Stenvick's?"
"When is Dr. Berg going to start a radio show taking car repair questions?"
"My children are terrified to get on the school bus after reading this novel."
"I just bought a new stove. After reading about McCount's stove I'm not happy with mine."
"Can we hire Dr. Stenvick as a guide for our next trip?"



LETTERS to the EDITOR

I feel obliged to respond to the most recent newsletter (September-October) in which our Editor encourages Denis Benjamin to share his (their?) beliefs on the efficacy of *Ganoderma mushrooms* as medicine.

Bio-medicine believes the double-blind, placebo-controlled, randomized trial is the gold standard of objective science. Dr. Benjamin cites the Cochrane Database as representative of this approach. I would agree. Therefore, I invite members of his fraternity to read *Tarnished Gold: The Sickness of Evidence-based Medicine*, to help place this particular belief system in its proper perspective.

The number four killer, annually, in the United States at the present time is prescription drugs, taken as directed. I guess the evidence isn't very good, as numerous lawsuits, and 100,000+ deaths, will attest.

There is a big difference, philosophically, between those individuals who believe the body can heal itself, and those who believe a heroic doctor, or pharmacist, or surgeon, need to intervene. These two camps view life through different lenses. Neither group is right nor wrong, neither more intelligent nor gullible. The humorous (?) attempt to belittle natural medicine reveals a deeply-seated prejudice that is both petty and disrespectful. George Carlin believed death was caused by swallowing small amounts of saliva over an extended period of time. Maybe, he was also right!

I believe all members of NAMA are best serviced when *Mycophile* can provide to its readers objective and educational materials; publishes articles or abstracts of interest, without bias or judgment, and allows free-thinking individuals to decide on the merits of articles, for themselves. To suggest there are no human clinical studies on Reishi is simply not accurate. As modern medicine begins the long-overdue investigation of our gut bio-genome, we may well find some of the benefits from medicinal mushrooms are due to compounds interacting with, or acting as fuel for our own intestinal bacterial and fungal companions. We just don't know enough at the present time.

As former Chair of the Medicinal Mushroom committee of NAMA, I was completely stymied for several years in attempts to share meaningful dialogue and numerous, interesting medicinal mushroom studies on the NAMA website. Many members have an interest in this particular aspect of mycology, and yet I was not able to post, for them, any articles or abstracts on the assigned page. I finally resigned my position over this constant editorial control from those controlling the website.

I would encourage the readership of *Mycophile* to express your point of view on the subject. After all, it is YOUR newsletter.

Robert Rogers (RH) AHG, assistant clinical professor, Family Medicine, University of Alberta, Canada

Hi Dianna,

I read with interest Steve Trudell's review of *California Mushrooms*. I received a review copy of (the original version of) this book early last year, addressed to David Rust, Bay Area Mycological Society. I discovered, on looking through the book, that the page listing California mushroom clubs (p.547) had two errors, and pointed this out to the Timber Press representative who had mailed me the book. My club, the Bay Area Mycological Society created in 2006, and our website, bayareamushrooms.org, is not listed. An old website url was listed for the Fungus Federation of Santa Cruz; it changed two years ago to ffsc.us.

When I learned that the book was going to be reprinted, I again asked the publisher to make these simple changes to the page. Obviously, that was not done. This is a serious oversight by the authors. Steve's review, which contains the statement: "*The back matter includes a glossary; lists of plant names arranged by common name, literature cited, and California mushroom clubs; photo credits; and index*" should have noted this error. Lead author Dennis Desjardin spoke to our club in February, which strengthens my case that yes, we actually do exist. Debbie Viess (Co-Founder, Bay Area Mycological Society) also wrote a review which will appear in the next issue of *Mushroom the Journal*. I highly recommend it!

David Rust
NAMA President
Co-Founder, Bay Area Mycological Society

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Easily renew online using PayPal at www.namyco.org/join/index.html.

NAMA PHOTOGRAPHY AWARDS

Photos of the winning entries to the 2015 NAMA Award for photography will be published in *The Mycophile* beginning with the 2016 January-February issue. In the meantime, here is a list of the winners and their photos:

DOCUMENTARY CATEGORY

Walt Sturgeon, 1st Place for photo of *Exsudoporus frostii*

Brian Looney, 2nd place for *Hygrocybe cuspidata*

Three Foragers, 3rd place for *Boletus morisii*

PICTORIAL CATEGORY

Mary Smiley, 1st place for *Boletus rubricitrinus*

Michael Beug, 2nd place for cultured *Sarcomyxa* sp.

Dianna Smith, 3rd place for *Lactifluus corrugis*

JUDGES' OPTION CATEGORY

Linda Sears, 1st place for Bowing Geisha *Ganoderma*

Robert Solem, 2nd place for Pacman 400X microphoto of *Strobilomyces* sp.

Michael Beug, 3rd place for *Morchella* Mel-19

Mycologist Walt Sundberg passed away on October 22, 2015, in Texas.

At Southern Illinois University, he served as professor from 1991-2005. Dr. Sundberg's specialty area was mycology. He taught classes in Field Mycology, Plant Pathology, Forest Pathology, Cytology, Microtechnique, Morphology of Non-Vascular Plants, Plant Diversity, as well as Introductory Botany and Biology. He received his PhD in 1971 from the University of California, Davis, after receiving his MA under Dr. Harry Thiers at San Francisco State University.



Walt was a longtime member of NAMA, where he taught beginning field mycology at many annual forays.

From his wife, Fran Rogers-Sundberg, "Walt was a wonderful teacher, speaker, knew so much. He still remembered his mycology, loved to answer my questions, was so enthusiastic, a true people-person. I can't believe he is gone, but that is a body thing for he does live on in my thoughts, my heart."

Walt was a strong supporter of the NAMA memorial fellowship fund. I remember his animated efforts cajoling attendees of the McCall foray to bid higher on auction items benefiting the endowment.

He will be missed by all who knew him.

David Rust

North American Mycological Association

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THE MYCOPHILE

Mushroom of the Issue



Here is a pretty little bolete known only from southern Florida and described by Singer and Williams in 1992. *Leccinum roseoscabrum* differs from all species described in *Leccinum* by the constant pink colored scabers low on the stipe which is often curved and ventricose. The pileus is brown to chestnut brown and pore surface when young is white. It is most often found under or near live oak. Taste is mild and it is considered edible. It is a beautiful little bolete to come across in the woods, often in groups or scattered under broad-leaf trees. I have only found them in the summer months but they are known to grow in the fall and winter in southwest Florida.

Leccinum roseoscabrum Photo and Text by Mary Smiley